DAILY FIELD ACTIVITY REPORT

PROJECT NAME: Pre-Remedial Design Investigation and Baseline Sampling, Portland Harbor Superfund Site

DATE: May 13, 2018	**WEATHER:** Sunny, High ~85 degrees F

Personnel and Visitors Onsite:
Research vessel Cayuse – CDM Smith: Jason Silvertooth; AECOM: Bruce Cassem; Geosyntec: Erin Dunbar; Gravity Marine: Peter Jenkins, Jeff Schut

Research vessel Tieton - CDM Smith: Mary Lou Fox; AECOM: Mark Tauscher; Geosyntec: Luke Smith; Gravity Marine: Mike Duffield, Ed Sloan.

Planned Activity:

- Cayuse: Collect surface sediment samples at random stratified, SMA, and co-located core locations from River Mile (RM) 9.5 to 11.
- Tieton: Collect surface sediment samples at sediment management area sample (SMA) locations near River Mile 6

Activity Completed:
A tailgate safety meeting was led by AECOM. Topics discussed included hot weather, sun protection, hydration, watching for wakes, heavy boat traffic during weekends, and deferring to Gravity staff for boat operations and docking.

Jason Silvertooth performed oversight of surface sediment sampling near RM 9.5 to 11 from 08:00 to 18:25 on board the Cayuse. Specific activities completed by the AECOM/Geosyntec team, with vessel support from Gravity Marine, are as follows:

- GPS position checks were performed at the beginning and end of the day at the PH-2 control point at the Fred Devine property. GPS coordinates were within 1.25 meters of the PH-2 survey coordinates, meeting the 1-2 m accuracy specification in the FSP.
- 3-point composite surface sediment samples were collected from one random stratified sample location near RM 10.8 W, one SMA sampling location at RM 10 E, and four co-located core locations near RM 9.7 W. Samples collected and a brief description of each sample are provided below. Between sampling locations all sampling equipment was decontaminated using Alconox and deionized/distilled water.

Mary Lou Fox performed oversight of surface sediment sampling at sediment management area locations from 08:00 to 18:00 on board the Tieton. Specific activities completed by the AECOM/Geosyntec team, with vessel support from Gravity Marine, are as follows:

- 3-point composite surface sediment samples were collected from 6 SMA locations near RM 6. Activities included decontamination of sampling equipment using Alconox and deionized/distilled water and housekeeping of the sampling area.
  - An EPA “thin” sample corresponding to a Pre-RD group “thick’ sample was collected from SMA location S080
  - A field duplicate was collected at location SG-S103
  - The sample from location SG-S097 will be archived
- Position checks at PH-2 indicated that the vessel GPS was reading within 1.06 meter of the PH-2 survey coordinates, meeting the 1-2 m accuracy specification in the FSP.

Status of Schedule & Priority Work:

- Sampling will continue tomorrow with SMA and co-located core sampling locations.
- Sampling on some private property locations will continue to occur at locations with property access agreements.
- Sample locations in areas of known/encountered heavy sheen contamination are planned to be skipped and returned to with support from NRC Environmental Services to contain sheen during sampling.
- Sampling is taking more time than initially projected.

Issues/Concerns/Resolutions (include work performed that was not planned or anticipated):

- Sample PDI-SG-S255 was comprised of three grabs with recovery depths of 11, 11, and 12 cm. To acquire these 3 samples, 11 total grab attempts were made in the 25 and 50-foot radii, and the sampler was fully weighted. Since there was no evidence that the sampler could achieve the required 20 cm penetration and there were no alternate locations, the field crew decided to composite the three grabs described above and to collect the sample. This sample will be archived pending resolution of instances where 20 cm recovery is not feasible with the current sampling equipment.

- The EPA and Pre-RD Group sample composites at SMA location S080 were made by combining one half of each grab sample bowl in the composite. Each grab sample bowl was homogenized prior to splitting in half. The EPA sample was collected from grabs 1, 2, and 3; and the Pre-RD Group sample was collected from grabs 1,2, and 6. The EPA "thin" sample is being archived. These samples were collected at 10:20 and 10:25. The grab bowls of sediment were stored covered with aluminum foil in a cooler on ice until the last grab was collected. All grab samples were collected and stored in this manner. Had a recovery of
- One location was attempted (SG-S097) but no grab had a recovery $\geq$ 20 cm. Grabs 4, 5 and 6, with recoveries of 16 cm, 14cm, and 11 cm, with maximum weight of 250 pounds added to sampler, were composited. No sediment was recovered from grabs 1, 2, or 3. AECOM/Geosyntech stated that the sample would be archived.
- Sample SG-S107 was collected from grabs 1, 2, and 4 of 4 grabs. Grab 3 had a recovery of 18 cm with 150 pounds extra weight on sampler. Full weight of 250 extra pounds on sampler used for grab 4, which had a recovery of 21 cm. Grabs 1 and 2, with the 150 extra pounds, had recoveries of 22 cm and 21 cm.
- Syringe with needle that washed up on back deck of boat was placed with gloved hands inside disposable water bottle which was sealed and then had both ends covered with duct tape. AECOM conferred with their health and safety officer about appropriate disposal. While boat was docked at boat launch for a quick break an Oregon state trooper was at the boat launch and accepted the water bottle with the syringe/needle for proper disposal.

Samples Collected, Measurements Made, Photographs: (List Locations, Matrix & Sample type):
On the Cayuse, sediment samples were collected at the following locations:

- PDI-SG-B380 – random stratified, within 50 ft radius, sandy silt with gravel and woody debris
- PDI-SG-S258– SMA, within 25 ft radius, sandy silt
- PDI-SG-S257 – co-located core location, within 25 ft radius, clayey silt with trace sand
- PDI-SG-S256 – co-located core location, within 25 ft radius, sandy silt with trace clay
- PDI-SG-S255 – co-located core location, within 50 ft radius, sandy silt
- PDI-SG-S254 – co-located core location, within 50 ft radius, silty sand (black sand)

On the Tieton, sediment management area sediment samples were collected between near RM 6 in the western portion of the navigation channel and from locations more centrally located within the river:

- PDI-SG-S080 – Within 25 ft radius, sand with trace woody debris
- PDI-SG-S097 – Within 50 ft radius, dark gray, fine-grained sand
- PDI-SG-S103 – Within 25 ft radius, very dark gray silt
- PDI-SG-S106 – Within 25 ft radius very dark gray silt
- PDI-SG-S107 – Within 25 ft radius, black well-graded sand with trace organics
- PDI-SG-S144 – Within 25 ft radius, very dark gray silt

Note: Sediment descriptions are simplified, but AECOM/Geosyntec documented using USCS descriptions.

Photographs of work were taken throughout the day on board the Cayuse and provided to EPA via email. Additional photos were taken and archived with a description included in the photolog Excel spreadsheet, which are maintained electronically in the ProjectWise project folder.

Borings Completed (Include total footage drilled for each boring):
None

Wastes Generated and How Handled:

- Excess sediment and debris in the power grab sampler and in the sampling bowls was rinsed back into the river per the FSP. No major sheen was observed.
- Disposable gloves, paper towels, and other general trash was containerized in a trash bag and removed daily for disposal to a municipal waste management dumpster.

Health and Safety Issues, Equipment Needs, Staffing:
None.

Signature: Jason Silvertooth, Mary Lou Fox **DATE** May 13, 2018